

## 5 Key Steps to Evidence Based Practice\*

### 1. Formulate a searchable, answerable clinical question.

PICO format

1. Patient population
2. Intervention
3. Comparison
4. Outcome

### 2. Collect the most relevant and best evidence.

Rating system for hierarchy of evidence:

1. Evidence from a systematic review or meta-analysis of all relevant randomized controlled trials (RCTs) or evidence based clinical practice guidelines based on systematic reviews
2. Evidence obtained from at least one well designed RCT
3. Evidence obtained from well designed controlled trials without randomization
4. Evidence from well designed case control trials without randomization

### 3. Critically appraise the quantitative evidence.

1. Validity - Are the results valid?
  - Bias
  - Confounded study results
2. Reliability - What are the results?
  - Size and precision of the effect
  - Magnitude of the effect
  - Strength of the association
  - Measures of clinical significance
  - Precision of the measurement of effect
  - Power
  - Sensitivity and specificity
3. Applicability - Will the results help me in caring for my patients?

### 4. Integrate all evidence with clinical expertise, patient preferences, and values in making a practice decision or change.

### 5. Evaluate the practice decision or change.

\*From Evidence Based Practice in Nursing & Healthcare:  
A Guide to Best Practice by Bernadette Mazurek Melnyk  
and Ellen Fineout-Overholt, 2005

August 2006

J. Welsh

# Database Searching

<http://nihlibrary.nih.gov/ResearchTools/>

## 1. Cochrane Library

- Reliable evidence from Cochrane and other systematic reviews, clinical trials, and more
- Gold standard in evidence-based healthcare

## 2. PubMed

Controlled vocabulary

- Evidence Based Medicine
- Practice Guidelines

Publication types

- Practice Guideline

Clinical Queries

- Systematic Reviews

## 3. CINAHL

Controlled vocabulary

- Exp professional practice, evidence based

Publication types

- Practice Guideline
- Standards
- Systematic Review

Special Interest Category

- Evidence based practice

## 4. Embase

EMTREE keywords

- Evidence Based Medicine
- Evidence Based Nursing
- Evidence Based Practice
- Evidence Based Practice Center
- Practice Guideline
- Systematic Review

## 5. PsycINFO

Thesaurus

- Evidence Based Practice

## 6. Natural Standard

- High quality, evidence-based information about complementary and alternative therapies

## 7. Natural Medicines Comprehensive Database

- Scientific gold standard to evidence-based, clinical information on natural medicines